CLAIMS:

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An assembly comprising

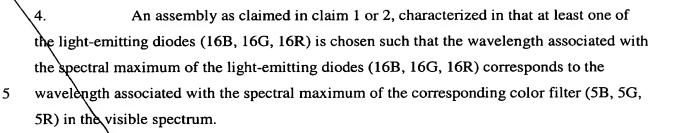
- a display device provided with a pattern of pixels (3) associated with color filters (5B, 5G, 5R), and
- an illumination system for illuminating the display device,
- said illumination system comprising a light-emitting panel (11) and at least one light source (16), said light source (16) being associated with the light-emitting panel (11), characterized in that
- the light source (16) comprises at least three light-emitting diodes (16B, 16G, 16R) having different light-emission wavelengths,
- said light emitting diodes (16B, 16G, 16R) being associated with the color filters (5B, 5G, 5R).
- 2. An assembly as claimed in claim 1, characterized in that
- the light source (16) comprises three light-emitting diodes (16B, 16G, 16R) having different light-emission wavelengths, and
 - the color filter comprises three color filters (5B, 5G, 5R),
- the spectral emission of each time one of the three light-emitting diodes (16B; 16G; 16R) being substantially adapted to the spectrum of one of the color filters (5B; 5G; 5R).
- 3. An assembly as claimed in claim \(\) or 2, characterized in that
- the light source (16) comprises at least one blue light-emitting diode, at least one green light-emitting diode and at least one red light-emitting diode (16B, 16G, 16R),
 - the color filter (5B, 5G, 5R) comprises a blue, a green and a red color filter,
- 25 and

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- in operation, the blue color filter (5B) predominantly passes light originating from the blue light-emitting diode (16B), the green color filter (5G) predominantly passes light originating from the green light-emitting diode (16G) and the red color filter (5R) predominantly passes light originating from the red light-emitting diode (16R).

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- 5. An assembly as claimed in claim 4, characterized in that the wavelength $\lambda_{\rm led}^{\rm max}$ associated with the spectral maximum of at least one of the light-emitting diodes (16B, 16G, 16R) and the wavelength $\lambda_{\rm cf}^{\rm max}$ associated with the spectral maximum of the corresponding color filter (5B, 5G, 5R) meet the relation: $\left| \lambda_{\rm led}^{\rm max} \lambda_{\rm cf}^{\rm max} \right| \le 5 \, nm$.
- 6. An assembly as claimed in claim 1 or 2, characterized in that the spectral bandwidth (FWHM) of the light-emitting diodes (16B, 16G, 16R) lies in the range between $10 \le \text{FWHM} \le 50 \text{ nm}$.
- 7. An assembly as claimed in claim 6, characterized in that the spectral bandwidth lies in the range between $15 \le FWHM \le 30$ nm.
- 8. An assembly as claimed in claim 1 or 2, characterized in that the intensity of the light emitted by the light-emitting diodes (16B, 16G, 16R) varies in response to the illumination level of a picture to be displayed by the display device.
- 9. An assembly as claimed in claim 8, characterized in that the intensity of the light emitted by the light-emitting diodes (16B, 16G, 16R) can be adjusted on a frame-to-frame basis.
 - 10. An assembly as claimed in claim 8, characterized in that the intensity of the light emitted by the light-emitting diodes (16B, 16G, 16R) can be adjusted for each color on a frame-to-frame basis.
 - 11. An assembly as claimed in claim 1 or 2, characterized in that each one of the light-emitting diodes (16B, 16G, 16R) has a luminous flux of at least 5 km.

- 12. An assembly as claimed in claim 11, characterized in that the light-emitting diodes (16B, 16G, 16R) are mounted on a printed circuit board.
- 5 13. A display device for use in an assembly as claimed in claim 1 or 2.
 - 14. An illumination system for use in an assembly as claimed in claim 1 or 2.